



North Carolina Department of Environment and Natural Resources
Division of Air Quality

Michael F. Easley, Governor

William G. Ross, Jr., Secretary
B. Keith Overcash, P.E., Director

ENTER DATE

Ms. Karen B. Wrigley
Plant Manager
E.I. du Pont de Nemours & Co., LLC
DBA, DuPont Company – Fayetteville Works
22828 NC Highway 87 West
Duart Township, North Carolina 28306-7332

Dear Ms. Wrigley

SUBJECT: Air Quality Permit No. 03735T32
Facility ID: 0900009
E.I. du Pont de Nemours & Co., LLC
DBA, DuPont Company – Fayetteville Works
Duart Township
Bladen County
Fee Class: Title V

In accordance with your completed Air Quality Permit Application for a “2nd-Part” significant modification of a Title V permit pursuant to 15A NCAC 2Q .0501(c)(2), 15A NCAC 2Q .0504, and 15A NCAC 2Q .0516 received October 11, 2007, we are forwarding herewith Air Quality Permit No. 03735T32 to E.I. du Pont de Nemours & Co., LLC, Duart Township, Bladen County, North Carolina authorizing the construction and operation of the emission source(s) and associated air pollution control device(s) specified herein. Additionally, any emissions activities determined from your Air Quality Permit Application as being insignificant per 15A North Carolina Administrative Code 2Q .0503 have been listed for informational purposes. Please note the requirements for the annual compliance certification are contained in General Condition P in Section 3 of Part I. **The current owner is responsible for submitting a compliance certification for the entire year regardless of who owned the facility during the year.**

As the designated responsible official it is your responsibility to review, understand, and abide by all of the terms and conditions of the attached permit. It is also your responsibility to ensure that any person who operates any emission source and associated air pollution control device subject to any term or condition of the attached permit reviews, understands, and abides by the condition(s) of the attached permit that are applicable to that particular emission source.

If any parts, requirements, or limitations contained in this Air Quality Permit are unacceptable to you, you have the right to request a formal adjudicatory hearing within 30 days following receipt of this permit, identifying the specific issues to be contested. This hearing request must be in the form of a written petition, conforming to NCGS (North Carolina General Statutes) 150B-23, and filed with **both** the Office of Administrative Hearings,

Permitting Section

1641 Mail Service Center, Raleigh, North Carolina 27699-1641
2728 Capital Blvd., Raleigh, North Carolina 27604
Phone: 919-715-6235 / FAX 919-733-5317 / Internet: www.ncair.org

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Ms. Karen B. Wrigley

ENTER DATE

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6714 Mail Service Center, Raleigh, North Carolina 27699-6714 and the Division of Air Quality, Permitting Section, 1641 Mail Service Center, Raleigh, North Carolina 27699-1641. The form for requesting a formal adjudicatory hearing may be obtained upon request from the Office of Administrative Hearings. Please note that this permit will be stayed in its entirety upon receipt of the request for a hearing Unless a request for a hearing is made pursuant to NCGS 150B-23, this Air Quality Permit shall be final and binding 30 days after issuance.

You may request modification of your Air Quality Permit through informal means pursuant to NCGS 150B-22. This request must be submitted in **writing** to the Director and must identify the specific provisions or issues for which the modification is sought. Please note that this Air Quality Permit will become final and binding regardless of a request for informal modification unless a request for a hearing is also made under NCGS 150B-23.

The construction of new air pollution emission source(s) and associated air pollution control device(s), or modifications to the emission source(s) and air pollution control device(s) described in this permit must be covered under an Air Quality Permit issued by the Division of Air Quality prior to construction. Failure to do so is a violation of GS 143-215.108 and may subject the Permittee to civil or criminal penalties as described in GS 143-215.114A and 143-215.114B.

This Air Quality Permit shall be effective from **ENTER DATE** until January 31, 2009, is nontransferable to future owners and operators, and shall be subject to the conditions and limitations as specified therein. Should you have any questions concerning this matter, please contact Ms. Fern Paterson, E.I.T. at (919) 715-6242.

Sincerely yours,

Donald R. van der Vaart, Ph.D., P.E.
Chief

Enclosure

cc: Gregg Worley, EPA Region 4
Fayetteville Regional Office
Central Files

ATTACHMENT I:

Summary of Changes to Previous Permit (No. 03735T32)

| Page(s) | Section | Description of Change(s) |
|----------------|---------------------------------|---|
| N/A | Insignificant Activity List | Remove Buacite® extruder systems (ID Nos. I-B8.1 and I-B8.2) from insignificant activity list (renamed ID Nos. BS-E1 and BS-E2 and added to permit). |
| 1 | Permit Cover Page | Amend permit revision numbers and issuance/effective dates. |
| 3-5 | Sec. 1, Table | <ul style="list-style-type: none"> - Remove all footnotes from table – following issuance of this permit, all federally-enforceable conditions will be covered under the Title V permit shield as provided in General Condition R. - Add Butacite® sheeting line sources (ID Nos. BS-E1, BS-E2, BS-E3, and BS-E4). |
| 9 | Sec. 2.1. A.4.d. | Reduce reporting frequency for PSD Avoidance condition from quarterly to semiannual. This is consistent with current NC DAQ protocol. |
| 9 | Sec. 2.1.B., Source Description | Add Butacite® sheeting line sources (ID Nos. BS-E1, BS-E2, BS-E3, and BS-E4). |
| 10 | Sec. 2.1.B.1.c. (former) | Remove condition in existing permit to retain production records. Maintenance, inspection, and recordkeeping requirements associated with the bagfilter (ID No. BCD-C2) and cyclone separator (ID No. BCD-C1) should be sufficient to demonstrate compliance with this PM standard. |
| 13 | Sec. 2.1.B.4.b | Add noncompliance statement to the MACT monitoring requirement. |
| 14-15 | Sec. 2.1.C.1.c. | Monitoring/recordkeeping was revised to be consistent with current NC DAQ protocol. |
| 15-16 | Sec. 2.1.C.4. | <ul style="list-style-type: none"> - Re-organize section for permit consistency. - Reduce reporting frequency from quarterly to semiannual. This is consistent with current NC DAQ protocol. |
| 16 | Sec. 2.1. C.5.d. | Reduce reporting frequency for PSD Avoidance condition from quarterly to semiannual. This is consistent with current NC DAQ protocol. |
| 17 | Sec. 2.1. C.6.d. | Reduce reporting frequency for PSD Avoidance condition from quarterly to semiannual. This is consistent with current NC DAQ protocol. |
| 19 | Sec. 2.1. D.4.d. | Reduce reporting frequency for PSD Avoidance condition from quarterly to semiannual. This is consistent with current NC DAQ protocol. |
| 21 | Sec. 2.1. G.1. | Revise 2D .0515 condition to specify PM limitation on a lb/mmBtu basis. |
| 21-22 | Sec. 2.1. G.2. | <ul style="list-style-type: none"> - Add NSPS visible emission testing requirement (Sec. 2.1.G.2.d.) - Move required fuel oil certification contents from reporting requirement to monitoring/recordkeeping requirement. - Add NSPS notification requirements. - Revise NSPS reporting requirements. |
| 22-23 | Sec. 2.1. G.3. | <ul style="list-style-type: none"> - Revise monitoring/recordkeeping requirements to include equations to be used in the monthly compliance demonstration. - Reduce reporting frequency from quarterly to semiannual. This is consistent with current NC DAQ protocol. |
| N/A | Part II (former) | Remove Part II from the permit. |

ATTACHMENT II:**Insignificant Activities Pursuant to 15A NCAC 2Q .0503(8)**

| Emission Source ID No. | Emission Source Description |
|-------------------------------|---|
| I-1 | Polyvinyl fluoride vacuuming system for housekeeping purposes |
| I-2 | Waste DMSO Storage Tank |
| I-3 | Fugitive Emissions of Methylene Chloride |
| I-4 | Chlorination of Riverwater to control mussel growth in equipment |
| I-5 | Sitewide Laboratory Emissions |
| I-6 | Outdoor abrasive blasting operation for items exceeding 8 feet in any dimension |
| I-7 | Paint shop |
| I-8 | Self-contained abrasive blasting cabinets |
| I-9 | Paint spray booths |
| I-B1 | PVA Unloading System and Storage Silos |
| I-B2 | PVA Dissolver Tank System |
| I-B7 | Plasticizer storage tank |

1. Because an activity is insignificant does not mean that the activity is exempted from an applicable requirement or that the owner or operator of the source is exempted from demonstrating compliance with any applicable requirement.
2. When applicable, emissions from stationary source activities identified above shall be included in determining compliance with the permit requirements for toxic air pollutants under 15A NCAC 2D .1100 "Control of Toxic Air Pollutants" or 15A NCAC 2Q .0711 "Emission Rates Requiring a Permit".



AIR QUALITY PERMIT

| Permit No. | Replaces Permit No. | Effective Date | Expiration Date |
|------------|---------------------|----------------|------------------|
| 03735T32 | 03735T31 | ENTER DATE | January 31, 2009 |

Until such time as this permit expires or is modified or revoked, the below named Permittee is permitted to construct and operate the emission source(s) and associated air pollution control device(s) specified herein, in accordance with the terms, conditions, and limitations within this permit. This permit is issued under the provisions of Article 21B of Chapter 143, General Statutes of North Carolina as amended, and Title 15A North Carolina Administrative Codes (15A NCAC), Subchapters 2D and 2Q, and other applicable Laws.

Pursuant to Title 15A NCAC, Subchapter 2Q, the Permittee shall not construct, operate, or modify any emission source(s) or air pollution control device(s) without having first submitted a complete Air Quality Permit Application to the permitting authority and received an Air Quality Permit, except as provided in this permit.

Permittee: **E.I. du Pont de Nemours & Co., LLC**
DBA, DuPont Company – Fayetteville Works

Facility ID: **0900009**

Facility Site Location: **22828 NC Highway 87 W**
City, County, State, Zip: **Duart Township, Bladen County, NC, 28306-7332**

Mailing Address: **22828 NC Highway 87 W**
City, State, Zip: **Fayetteville, NC, 28306-7332**

Application Number: **0900009.07B**
Complete Application Date: **October 11, 2007**

Primary SIC Code: **2821, 3081, 3083**
Division of Air Quality, **Fayetteville Regional Office**
Regional Office Address: **225 Green Street, Suite 714**
Fayetteville, NC 28301

Permit issued this the **ENTER DATE**, 2007

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specific requirements, testing, monitoring, recordkeeping, and reporting
requirements)

SECTION 3: GENERAL PERMIT CONDITIONS

ATTACHMENT

List of Acronyms

PART II

This permit does not include a Part II.

PART I

The Division of Air Quality (DAQ), the United States Environmental Protection Agency (EPA), and citizens as defined under the Federal Clean Air Act have the authority to enforce the terms, conditions, and limitations contained in Part I of this permit unless otherwise specified.

Under Title 15A NCAC 2Q, the operation of emission source(s) and associated air pollution control device(s) and appurtenances listed in Part I of this permit is based on plans, specifications, operating parameters, and other information as submitted in the Air Quality Permit Application.

SECTION 1 - PERMITTED EMISSION SOURCE(S) AND ASSOCIATED AIR POLLUTION CONTROL DEVICE(S) AND APPURTENANCES

The following table contains a summary of all permitted emission sources and associated air pollution control devices:

| Emission Source ID No. | Emission Source Description¹ | Control Device ID No. | Control Device Description¹ |
|-------------------------------|---|------------------------------|---|
| PS-1 | No.2/No. 6 fuel oil-fired boiler (139.4 million Btu per hour maximum heat input) | N/A | N/A |
| PS-2 | No. 2/No. 6 fuel oil-fired boiler (88.4 million Btu per hour maximum heat input) | N/A | N/A |
| PS-Temp NSPS Dc | No. 2 fuel oil-fired boiler (greater than 30.0 and less than 100.0 million Btu per hour maximum heat input) | N/A | N/A |
| BS-A | Butyraldehyde storage tank | BCD-A | Brine-cooled condenser |
| BS-B1.1 through BS-B1.4 | Butacite [®] polyvinyl butyral flake reactors (4 units) | BCD-B1 | Packed-bed column scrubber with mist eliminator (8 gallons per minute water injection rate averaged over a 3-hour period) (state-enforceable, only) |
| BS-B2.1 through BS-B2.4 | Butacite [®] polyvinyl butyral flake reactors (4 units) | BCD-B2 | Packed-bed column scrubber with mist eliminator (8 gallons per minute water injection rate averaged over a 3-hour period) (state-enforceable, only) |
| BS-C | Butacite [®] polyvinyl butyral flake dryer | BCD-C1 BCD-C2 | Cyclone separator Fabric filter (6,858 square feet of filter area) |
| BS-E1 | Butacite [®] Line No. 3 Sheeting Extrusion Process, including four (4) extruders | BCD-E1 | Water-Cooled Condenser (voluntary use only) |
| BS-E2 | Butacite [®] Line No. 4 Sheeting Extrusion Process, including three (3) extruders | BCD-E2 | Water-Cooled Condenser (voluntary use only) |
| BS-E3 | Butacite [®] Line No. 3 Back-End Processes, including a quencher, dryer/relaxer, and wind-up area | N/A | N/A |

| Emission Source ID No. | Emission Source Description¹ | Control Device ID No. | Control Device Description¹ |
|-------------------------------|--|--------------------------------------|--|
| BS-E4 | Butacite [®] Line No. 4 Back-End Processes, including a quencher, dryer/relaxer, and wind-up area | N/A | N/A |
| BS-D MACT KK | Butacite [®] Polyvinyl butyral sheeting rotogravure printing operation | BCD-D1 | Multi-stage horizontal spray scrubber (6 gallons per minute of water flow to each nozzle, averaged over a 3-hour period) |
| NS-A MACT FFFF | Nafion [®] Hexfluoropropylene epoxide process (HFPO) | NCD-Hdr1 -or- NCD-Hdr2 | Baffle-plate scrubber (7,000 kilogram/hour liquid injection rate averaged over a 3-hour period) Baffle-plate scrubber (7,000 kilogram/hour liquid injection rate averaged over a 3-hour period) |
| NS-B MACT FFFF | Nafion [®] Vinyl Ethers North process | NCD-Hdr1 -or- NCD-Hdr2 | Baffle-plate scrubber (7,000 kilogram/hour liquid injection rate averaged over a 3-hour period) Baffle-plate scrubber (7,000 kilogram/hour liquid injection rate averaged over a 3-hour period) |
| NS-C MACT FFFF | Nafion [®] Vinyl Ethers South process | NCD-Hdr1 -or- NCD-Hdr2 | Baffle-plate scrubber (7,000 kilogram/hour liquid injection rate averaged over a 3-hour period) Baffle-plate scrubber (7,000 kilogram/hour liquid injection rate averaged over a 3-hour period) |
| NS-D MACT FFFF | Nafion [®] RSU Process | NCD-Hdr1 -or- NCD-Hdr2 | Baffle-plate scrubber (7,000 kilogram/hour liquid injection rate averaged over a 3-hour period) Baffle-plate scrubber (7,000 kilogram/hour liquid injection rate averaged over a 3-hour period) |
| NS-E MACT FFFF | Nafion [®] Liquid waste stabilization | NCD-Hdr1 -or- NCD-Hdr2 | Baffle-plate scrubber (7,000 kilogram/hour liquid injection rate averaged over a 3-hour period) Baffle-plate scrubber (7,000 kilogram/hour liquid injection rate averaged over a 3-hour period) |
| NS-F MACT FFFF | Nafion [®] MMF process | NCD-Hdr1 -or- NCD-Hdr2 | Baffle-plate scrubber (7,000 kilogram/hour liquid injection rate averaged over a 3-hour period) Baffle-plate scrubber (7,000 kilogram/hour liquid injection rate averaged over a 3-hour period) |

| Emission Source ID No. | Emission Source Description¹ | Control Device ID No. | Control Device Description¹ |
|-------------------------------|--|--------------------------------------|--|
| NS-G MACT FFFF | Nafion® Resins process | NCD-G | Venturi vacuum jet caustic scrubber |
| NS-H MACT FFFF | Nafion® membrane process | N/A | N/A |
| NS-I MACT FFFF | Nafion® membrane coating | N/A | N/A |
| NS-J MACT FFFF | Nafion® semiworks | N/A | N/A |
| NS-K MACT FFFF | Nafion® E-2 Process | N/A | N/A |
| NS-L | Nafion® TFE/HCl separation unit | NCD-Hdr1 -or- NCD-Hdr2 | Baffle-plate scrubber (7,000 kilogram/hour liquid injection rate averaged over a 3-hour period) Baffle-plate scrubber (7,000 kilogram/hour liquid injection rate averaged over a 3-hour period) |
| NS-M | Nafion® TFE/CO ₂ separation process | N/A | N/A |
| SW-1 | Semiworks polymerization operation | N/A | N/A |
| SW-2 | Semiworks laboratory hood | N/A | N/A |
| FS-A | Fluoroproducts polymer manufacturing development facility | FCD-A1 FCD-A2 | Wet scrubber (3 gallons per minute water injection rate averaged over a 3-hour period) (nominal injection rate) Fabric filter (125 square feet of filter area) |
| AS-A | APFO Manufacturing Facility | ACD-A1 ACD-A3 | Wet scrubber (30 gallons per minute water injection rate averaged over a 3-hour period) (state-enforceable only) Wet scrubber installed on the building exhaust vent (voluntary use only) |
| WTS-A | Extended aeration biological wastewater treatment facility | N/A | N/A |
| WTS-B, WTS-C | Two (2) Indirect steam-heated, rotary sludge dryers | WTCD-1 | Impingement-type wet scrubber with mist eliminator (state-enforceable only) |
| SGS-A | SentryGlas® Plus Manufacturing | N/A | N/A |
| FS-B | Polyvinyl Fluoride polymer manufacturing facility | N/A | N/A |

SECTION 2 - SPECIFIC LIMITATIONS AND CONDITIONS

2.1- Emission Source(s) and Control Device(s) Specific Limitations and Conditions

The emission source(s) and associated air pollution control device(s) and appurtenances listed below are subject to the following specific terms, conditions, and limitations, including the testing, monitoring, recordkeeping, and reporting requirements as specified herein:

- A. No. 2/No. 6 fuel oil-fired boiler (ID No. PS-1, 139.4 million Btu per hour maximum heat input), and
No. 2/No. 6 fuel oil-fired boiler (ID No. PS-2, 88.4 million Btu per hour maximum heat input)**

The following table provides a summary of limits and standards for the emission source(s) described above:

| Regulated Pollutant | Limits/Standards | Applicable Regulation |
|--|---|--|
| Particulate matter | 0.2667 pounds particulate per million Btu heat input, each | 15A NCAC 2D .0503 |
| Sulfur dioxide | 2.3 pounds SO ₂ per million Btu heat input, each | 15A NCAC 2D .0516 |
| Visible emissions | Affected Source: PS-1, only 40% visible opacity emissions Affected Source: PS-2, only 20% visible opacity emissions | 15A NCAC 2D .0521(c) 15A NCAC 2D .0521(d) |
| PM, PM-10, NO _x , and SO ₂ | Affected Source: PS-2, only Particulate matter <25 tons per year. Particulate matter under 10 micron < 15 tons per year. Nitrogen oxide < 40 tons per year. Sulfur dioxide < 40 tons per year. | 15A NCAC 2Q .0317 (PSD Avoidance) |

1. **15A NCAC 2D .0503: PARTICULATES FROM FUEL BURNING INDIRECT HEAT EXCHANGERS**
 - a. Emissions of particulate matter from the combustion of No. 2/No. 6 fuel oil, that are discharged from this source into the atmosphere shall not exceed 0.2667 pounds per million Btu heat input.

Testing [15A NCAC 2D .0501(c)(3)]
 - b. If emissions testing is required, the testing shall be performed in accordance General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0503.

Monitoring/Recordkeeping/Reporting [15A NCAC 2Q .0508(f)]
 - c. No monitoring/recordkeeping/reporting is required for particulate emissions from the firing of No. 2 or No. 6 fuel oil in these sources.

2. **15A NCAC 2D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES**
 - a. Emissions of sulfur dioxide from these sources shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

Testing [15A NCAC 2D .0501(c)(4)]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(4) and General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1 B.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516.

Monitoring/Recordkeeping [15A NCAC 2Q .0508(f) and 15A NCAC 2D .0501(c)(4)(A)]

- c. No monitoring/recordkeeping is required for sulfur dioxide emissions from No. 2 fuel oil burned in these sources.
- d. The maximum sulfur content of any No. 6 fuel oil received and burned in the boiler shall not exceed 2.1 percent by weight. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516 if the sulfur content of the fuel oil exceeds this limit.
- e. To assure compliance, the Permittee shall monitor the sulfur content of the No. 6 fuel oil by using fuel oil supplier certification per shipment received. The results of the fuel oil supplier certifications shall be recorded in a logbook (written or electronic format) on a quarterly basis and include the following information:
 - i. the name of the fuel oil supplier;
 - ii. the maximum sulfur content of the fuel oil received during the quarter;
 - iii. the method used to determine the maximum sulfur content of the fuel oil; and
 - iv. a certified statement signed by the responsible official that the records of fuel oil supplier certification submitted represent all of the No. 6 fuel oil fired during the period.The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516 if the sulfur content of the oil is not monitored and recorded.

Reporting [15A NCAC 2Q .0508(f)]

- f. The Permittee shall submit a summary report of the fuel oil supplier certifications postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

3. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from the boiler (**ID No. PS-1**) shall not be more than 40 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 40 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 90 percent opacity.
- b. Visible emissions from the boiler (**ID No. PS-2**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 2D .0501(c)(8)]

- c. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(8) and General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.3.a. or .b above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

Monitoring [15A NCAC 2Q .0508(f)]

- d. To assure compliance, each day that an affected source fires No. 6 fuel oil, the Permittee shall observe the emission point of the affected source for any visible emissions above normal. The daily observation must be made for each day of the calendar year period to ensure compliance with this requirement. The

Permittee shall be allowed three (3) days of absent observations per semi-annual period. If visible emissions from this source are observed to be above normal, the Permittee shall either:

- i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
- ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .0501(c)(8) is below the limit given in Section 2.1 A.3.a. or b. above.

If the above-normal emissions are not corrected per (i) above or if the demonstration in (ii) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0521.

Recordkeeping [15A NCAC 2Q .0508(f)]

- e. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of each recorded action;
 - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
 - iii. the results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521 if these records are not maintained.

Monitoring/Recordkeeping/Reporting [15A NCAC 2Q .0508(f)]

- f. No monitoring/recordkeeping/reporting is required for visible emissions from the firing of No. 2 fuel oil in these sources.

Reporting [15A NCAC 2Q .0508(f)]

- g. The Permittee shall submit a summary report of the observations postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

**4. 15A NCAC 2Q .0317: AVOIDANCE CONDITIONS
for 15A NCAC 2D. 0530: PREVENTION OF SIGNIFICANT DETERIORATION**

- a. In order to avoid applicability of 15A NCAC 2D .0530(g) for major sources and major modifications, the affected boiler (**ID No. PS-2 only**) shall discharge into the atmosphere less than the following, per consecutive 12-month period.

| Pollutant | Emission Limitation (tons per year) |
|-------------------------------------|--|
| Particulate Matter | 25 |
| Particulate Matter under 10 microns | 15 |
| Nitrogen Oxide | 40 |
| Sulfur Dioxide | 40 |

Testing [15A NCAC 2Q .0501(c)]

- b. If emissions testing is required, the Permittee shall perform such testing in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.4.a., the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.

Monitoring/Recordkeeping [15A NCAC 2Q .0508(f)]

- c. The Permittee shall keep monthly accounting records of the amount of fuel used and the sulfur content, including certification of the fuel, in a logbook (written or in electronic format). The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the sulfur content of the fuel is not monitored.

Reporting [15A NCAC 2Q .0508(f)]

- d. The Permittee shall submit a semi-annual summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following:
- i. The monthly particulate matter, particulate matter below 10 microns, nitrogen oxide, and sulfur dioxide emissions for the previous 17 months. The emissions must be calculated for each of the 12-month periods over the previous 17 months;
 - ii. The monthly quantities of No. 2/No. 6 fuel oil consumed for the previous 17 months;
 - iii. The average sulfur content for the fuel oil; and,
 - iv. All instances of deviations from the requirements of this permit must be clearly identified.

- B. Butacite® Process Area consisting of one butyraldehyde storage tank (ID No. BS-A) controlled by a brine cooled condenser (ID No. BCD-A),
Four Butacite® flake reactors (ID Nos. BS-B1.1 through BS-B1.4) controlled by a packed-bed scrubber (ID No. BCD-B1),
Four Butacite® flake reactors (ID Nos. BS-B2.1 through BS-B2.4) controlled by a packed-bed scrubber (ID No. BCD-B2),
One Butacite® flake dryer (ID No. BS-C) controlled by a cyclone (ID No. BCD-C1) and fabric filter (ID No. BCD-C2) and,
Butacite® Line No. 3 Sheeting Extrusion Process, including four (4) extruders (ID No. BS-E1) controlled by a water-cooled condenser (ID No. BCD-E1) (voluntary use only)
Butacite® Line No. 4 Sheeting Extrusion Process, including three (3) extruders (ID No. BS-E2) controlled by a water-cooled condenser (ID No. BCD-E2) (voluntary use only)
Butacite® Line No. 3 Back-End Process, including a quencher, dryer/relaxer, and wind-up area (ID No. BS-E3)
Butacite® Line No. 4 Back-End Process, including a quencher, dryer/relaxer, and wind-up area (ID No. BS-E4)
One polyvinyl butyral sheeting rotogravure printing operation (ID No. BS-D) controlled by one multi-stage horizontal spray scrubber (ID No. BCD-D1).**

The following table provides a summary of limits and standards for the emission source(s) described above:

| Regulated Pollutant | Limits/Standards | Applicable Regulation |
|---------------------|---|--|
| Particulate matter | Affected Source: BS-C, only for process rates less than 30 tons per hour - $E = 4.10 \times P^{0.67}$ Where: E = allowable emission rate in pounds per hour, and P = the process weight rate in tons per hour | 15A NCAC 2D .0515 |
| Visible emissions | Affected Source: BS-C, only 20% visible opacity emissions | 15A NCAC 2D .0521 |
| Odors | State-enforceable only odorous emissions must be controlled. | 15A NCAC 2D .1806 |
| Organic HAP | Affected Source: BS-D, only National Emission Standards for Hazardous Air Pollutants, Printing and Publishing Industry | 15A NCAC 2D .1111 (40 CFR 63, Subpart KK) |

1. 15A NCAC 2D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

- a. Emissions of particulate matter from the affected source (**ID No. BS-C**) shall not exceed an allowable emission rate as calculated by the following equation:

$$E = 4.10 \times P^{0.67}$$

Where: E = allowable emission rate in pounds per hour
P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 2D .0501(c)(3)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 B.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.

Monitoring/Recordkeeping [15A NCAC 2Q .0508(f)]

- c. Particulate matter emissions from the Butacite[®] flaker dryer (**ID No. BS-C**) shall be controlled by the bagfilter (**ID No. BCD-C2**) and cyclone separator (**ID No. BCD-C1**). To assure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there is no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
- i. a monthly visual inspection of the system ductwork and material collection unit for leaks; and
 - ii. an annual internal inspection of the bagfilter's structural integrity.
- The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the ductwork and bagfilters are not inspected and maintained.
- d. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
- i. the date and time of each recorded action;
 - ii. the results of each inspection;
 - iii. the results of any maintenance performed on the bagfilters; and
 - iv. any variance from manufacturer's recommendations, if any, and corrections made.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if these records are not maintained.

Reporting [15A NCAC 2Q .0508(f)]

- e. The Permittee shall submit the results of any maintenance performed on the bagfilters within 30 days of a written request by the DAQ.
- f. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from the affected source (**ID No. BS-C**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 2D .0501(c)(8)]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(8) and General Condition JJ. If the results of this test are above the limit given in Section 2.1 B.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

Monitoring [15A NCAC 2Q .0508(f)]

- c. To assure compliance, once a month the Permittee shall observe the emission point of the affected source for any visible emissions above normal. The monthly observation must be made for each month of the calendar year period to ensure compliance with this requirement. If visible emissions from this source are observed to be above normal, the Permittee shall either:
 - i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .0501(c)(8) is below the limit given in Section 2.1 B.2.a. above.

If the above-normal emissions are not corrected per (i) above or if the demonstration in (ii) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0521.

Recordkeeping [15A NCAC 2Q .0508(f)]

- d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of each recorded action;
 - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
 - iii. the results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521 if these records are not maintained.

Reporting [15A NCAC 2Q .0508(f)]

- e. The Permittee shall submit a summary report of the observations postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

STATE-ENFORCEABLE ONLY**3. 15A NCAC 2D .1806: CONTROL AND PROHIBITION OF ODOROUS EMISSIONS**

- a. The Permittee shall not operate the above listed equipment without implementing management practices or installing and operating odor control equipment sufficient to prevent odorous emissions from the facility from causing or contributing to objectionable odors beyond the facility's boundary.
- b. **CONDENSER REQUIREMENTS** - Odorous emissions from the butyraldehyde storage tank (**ID No. BS-A**) shall be controlled by a condenser (**ID No. BCD-A**). To comply with the provisions of this Permit and ensure that maximum control efficiency is maintained, the Permittee shall perform periodic inspections and maintenance as recommended by the manufacturer. The results of the inspections and maintenance shall be recorded in a logbook (either written or electronic).
- c. **SCRUBBER REQUIREMENTS** - Gaseous emissions from the Butacite[®] flake reactor line (**ID Nos. BS-B1.1 through BS-B1.4**) shall be controlled by packed column scrubber (**ID No. BCD-B1**). Gaseous emissions from the Butacite[®] flake reactor line (**ID Nos. BS-B2.1 through BS-B2.4**) shall be controlled by packed column scrubber (**ID No. BCD-B2**).
- d. **INSPECTION AND MAINTANENCE REQUIREMENTS** - To comply with the provisions of this Permit and ensure that maximum control efficiency is maintained, the Permittee shall perform periodic inspections and maintenance as recommended by the manufacturer. As a minimum, the inspection and maintenance program shall include inspection of spray nozzles, packing material, chemical feed system (if so equipped), and the cleaning/calibration of all associated instrumentation.
- e. **MONITORING REQUIREMENTS** - The Permittee shall ensure the proper performance of the Flake Reactor Line's packed column scrubbers (**ID Nos. BCD-B1 and BCD-B2**) by monitoring the following operational parameters:
 - i. Liquid flow rate (minimum of 8 gallons per minute averaged over a 3-hour period), and
 - ii. Differential pressure across the scrubber (maximum of 30 inches of water pressure averaged over a 3-hour period), with a high differential pressure alarm.
- f. **RECORDKEEPING REQUIREMENTS** - The Permittee shall record the results of inspections in a scrubber logbook (written or electronic records) that shall be kept on site and made available to Division of Air Quality personnel upon request. Any variance from the manufacturer's recommendations or the permit monitoring requirements, or the failure of the air pollution control equipment to operate in a normal and usual manner, shall be investigated with corrections made and dates of action recorded in the log book. The inspection and maintenance activities, as well as required monitoring for scrubbing liquid flow rates, and scrubber pressure drops, if appropriate, shall be recorded.

4. 15A NCAC 2D .1111: MAXIMUM AVAILABLE CONTROL TECHNOLOGY (40 CFR 63, Subpart KK: Printing and Publishing Industry)

For the polyvinyl butyral (Butacite[®]) sheeting rotogravure printing operation (**ID No. BS-D**), the Permittee shall comply with all applicable provisions, including the notification, testing, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 2D .1111 as promulgated in 40 CFR 63, Subpart KK, including Subpart A "General Provisions" except as follows:

"Oxidizer" referenced in 40 CFR Part 63.820 through 63.831 shall refer to scrubber (**ID No. BCD-D1**) and shall require the operation and maintenance of devices to monitor water flow rate and air flow rate (used in dispersion of water in the scrubber) for the scrubber (**ID No. BCD-D1**) in lieu of a temperature monitoring device for an oxidizer.

Control Requirements [15A NCAC 2Q .0508(f)]

- a. Emissions from the polyvinyl butyral sheeting rotogravure printing operation shall be controlled using a

permanent total enclosure for the process area and a multi-stage horizontal spray scrubber (**ID No. BCD-D1**) that achieves an overall organic HAP control efficiency of at least 95 percent.

Monitoring Requirements [15A NCAC 2Q .0508(f)]

- b. The Permittee shall ensure the proper performance of the scrubber (**ID No. BCD-D1**) by monitoring the following operational parameters:
- i. Water flow rate to each nozzle (minimum of 6 gallons per minute, averaged over a three-hour period).
 - ii. Air flow rate to each nozzle (minimum of 63 standard cubic feet per minute, averaged over a three-hour period).
 - iii. General area exhaust fan exit velocity (minimum of 3,950 feet per minute, averaged over a three-hour period).

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 if the required monitoring is not conducted or if the monitored parameter exceeds the minimum value.

Recordkeeping/Reporting [15A NCAC 2Q .0508(f)]

- c. The Permittee shall comply with all applicable record keeping and reporting requirements specified in 40 CFR Parts 63.829 and 63.830, and in 40 CFR Part 63 Subpart A - General Provisions, including the following reporting requirements:
- i. As specified in 40 CFR Part 63.6(e)(3)(iv), if an action taken by the Permittee during a startup, shutdown, or malfunction (including an action taken to correct a malfunction) is not consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, the Permittee shall record the actions taken for that event and shall report such actions within 2 working days after commencing actions inconsistent with the plan, followed by a letter within 7 working days after the end of the event, in accordance with 40 CFR Part 63.10(d)(5).
 - ii. The Permittee shall submit to the Regional Supervisor, DAQ, a semi-annual summary report as specified in 40 CFR Part 63.830, by January 30 of each calendar year for the preceding six-month period between July and December, and by July 30 of each calendar year for the preceding six-month period between January and June.
 - iii. If the actions taken by the Permittee during start-up, shutdown, or malfunction (SSM) are not completely consistent with the procedures specified in the SSM plan, then the Permittee shall submit an SSM report, as specified in 40 CFR Part 63.830, to the Regional Supervisor, DAQ. However, separate SSM reports are not required if the information is included in the semi-annual summary report specified above in Section 2.1. B.4.c.i.

- C. Nafion[®] Process Area consisting of one hexfluoropropylene epoxide process (ID No. NS-A) controlled by one baffle-plate scrubber (ID No. NCD-Hdr1 or NCD-Hdr2), Two vinyl ethers processes (ID Nos. NS-B and NS-C) EACH controlled by one of two available baffle-plate scrubbers (ID No. NCD-Hdr1 or NCD-Hdr2), One RSU process (ID No. NS-D) controlled by one baffle-plate scrubber (ID No. NCD-Hdr1 or NCD-Hdr2), One liquid waste stabilization process (ID No. NS-E) controlled by one baffle-plate scrubber (ID No. NCD-Hdr1 or NCD-Hdr2), One MMF process (ID No. NS-F) controlled by one baffle-plate scrubber (ID No. NCD-Hdr1 or NCD-Hdr2), One resins fluorination process (ID No. NS-G) controlled by a venturi vacuum jet scrubber (ID No. NCD-G), One Nafion[®] membrane process (ID No. NS-H), One Nafion[®] membrane coating process (ID No. NS-I),**

**Three Nafion[®] semiworks processes (ID Nos. SW-1, SW-2, and NS-J),
 One E-2 Process (ID No. NS-K),
 One TFE/HCl separation unit (ID No. NS-L) controlled by one baffle-plate scrubber (ID
 No. NCD-Hdr1 or NCD-Hdr2), and
 One uncontrolled TFE/CO₂ separation unit (ID No. NS-M)**

The following table provides a summary of limits and standards for the emission source(s) described above:

| Regulated Pollutant | Limits/Standards | Applicable Regulation |
|----------------------------|---|--|
| Particulate matter | Affected Sources: ID No. NS-I, only For process rates less than 30 tons per hour - $E = 4.10 P^{0.67}$ where: E = allowable emission rate in pounds per hour, and P = process weight rate in tons per hour | 15A NCAC 2D .0515 |
| Visible emissions | Affected Sources: ID No. NS-I, only 20% visible opacity emissions | 15A NCAC 2D .0521 |
| Odors | State-enforceable only odorous emissions must be controlled | 15A NCAC 2D .1806 |
| Toxic air pollutants | State-enforceable only Permit limits for toxic air pollutants shall not be exceeded. See Section 2.2.A and B. | 15A NCAC 2D .1100 |
| Volatile organic compounds | Affected Sources: ID No. NS-B, only VOC emissions < 68.9 tons per consecutive 12-month period Affected Sources: ID No. NS-G, only VOC emissions < 40 tons per consecutive 12-month period Affected Sources: ID No. NS-A, only VOC emissions < 85.3 tons per consecutive 12-month period | 15A NCAC 2Q .0317 (PSD Avoidance) |
| Hazardous air pollutants | Affected Sources: All, excluding ID No. NS-L and NS-M Miscellaneous Organic NESHAP (MON) | 15A NCAC 2D .1111 (40 CFR 63, Subpart FFFF) |

1. 15A NCAC 2D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

- a. Emissions of particulate matter from the affected source (**ID No. NS-I**) shall not exceed an allowable emission rate as calculated by the following equation:

$$E = 4.10 \times P^{0.67}$$

Where: E = allowable emission rate in pounds per hour
P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 2D .0501(c)(3)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 C.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.

Monitoring/Recordkeeping [15A NCAC 2Q .0508(f)]

- c. The Permittee shall maintain production records such that the process rates "P" in tons per hour, as specified by the formulas contained above (or the formulas contained in 15A NCAC 2D .0515) can be derived, and shall make these records available to a DAQ authorized representative upon request. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the production records are not maintained or the types of materials and finishes are not monitored.

Reporting [15A NCAC 2Q .0508(f)]

- d. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from the affected source (**ID No. NS-I**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 2D .0501(c)(8)]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(8) and General Condition JJ. If the results of this test are above the limit given in Section 2.1 C.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

Monitoring/Recordkeeping/Reporting [15A NCAC 2Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required for visible emissions from this source.

STATE-ENFORCEABLE ONLY

3. 15A NCAC 2D .1806: CONTROL AND PROHIBITION OF ODOROUS EMISSIONS

- a. The Permittee shall not operate the above listed equipment without implementing management practices or installing and operating odor control equipment sufficient to prevent odorous emissions from the facility from causing or contributing to objectionable odors beyond the facility's boundary.

4. 15A NCAC 2Q .0317: AVOIDANCE CONDITIONS

for 15A NCAC 2D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

- a. In order to avoid applicability of this regulation, the Vinyl Ethers North process (**ID No. NS-B**) shall discharge into the atmosphere less than 68.9 tons of VOCs per consecutive 12-month period.

Monitoring/Recordkeeping [15A NCAC 2Q .0508(f)]

- b. Calculations of VOC emissions per month shall be made within 30 days of the end of each month. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the amounts of VOC containing materials or the VOC emissions are not monitored and recorded.
- c. The total amount of VOC emissions shall be recorded monthly in a logbook (written or electronic format). The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the VOC emissions exceed this limit.

Monitoring [15A NCAC 2Q .0508(f)]

- d. The Permittee shall ensure the proper performance of the Nafion Baffle Plate-Type Tower Scrubbers (**ID Nos. NCD-Hdr-1 and NCD-Hdr-2**) by monitoring the following operational parameters:
 - i. Injection liquid flow rate (minimum of 7,000 kilograms per hour, averaged over a three-hour period).

Recordkeeping [15A NCAC 2Q .0508(f)]

- e. The Permittee shall record the results of inspections in a scrubber logbook (written or electronic records), which shall be kept on site and made available to Division of Air Quality personnel upon request. Any variance from the manufacturer's recommendations or the permit monitoring requirements, or the failure of the air pollution control equipment to operate in a normal and usual manner, shall be investigated with corrections made and dates of action recorded in the log book. The inspection and maintenance activities, as well as required monitoring for scrubbing liquid flow rates, and scrubber pressure drops, if appropriate, shall be recorded.

Reporting [15A NCAC 2Q .0508(f)]

- f. The Permittee shall submit a semi-annual summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following:
 - i. The monthly VOC emissions for the previous 17 months. The emissions shall be calculated for each of the 12-month periods over the previous 17 months.

5. 15A NCAC 2Q. 0317: AVOIDANCE CONDITIONS

for 15A NCAC 2D. 0530: PREVENTION OF SIGNIFICANT DETERIORATION

- a. In order to avoid applicability of this regulation, the resins process (**ID No. NS-G**) shall discharge into the atmosphere less than 40 tons of VOCs per consecutive 12-month period.

Monitoring/Recordkeeping [15A NCAC 2Q .0508(f)]

- b. Calculations of VOC emissions per month shall be made within 30 days of the end of each month. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the amounts of VOC containing materials or the VOC emissions are not monitored and recorded.
- c. Calculations and the total amount of VOC emissions shall be recorded monthly in a logbook (written or electronic format). The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the VOC emissions exceed this limit.

Reporting [15A NCAC 2Q .0508(f)]

- d. The Permittee shall submit a semi-annual summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following:
 - i. The monthly VOC emissions for the previous 17 months. The emissions shall be calculated for each of the 12-month periods over the previous 17 months.

6. 15A NCAC 2Q. 0317: AVOIDANCE CONDITIONS

for 15A NCAC 2D. 0530: PREVENTION OF SIGNIFICANT DETERIORATION

- a. In order to avoid applicability of this regulation, the HFPO process (**ID No. NS-A**) shall discharge into the atmosphere less than 85.3 tons of VOCs per consecutive 12-month period.

Monitoring/Recordkeeping [15A NCAC 2Q .0508(f)]

- b. Calculations of VOC emissions per month shall be made within 30 days of the end of each month. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the amounts of VOC containing materials or the VOC emissions are not monitored and recorded.
- c. The total amount of VOC emissions shall be recorded monthly in a logbook (written or electronic format).

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the VOC emissions exceed this limit.

Reporting [15A NCAC 2Q .0508(f)]

- d. The Permittee shall submit a semi-annual summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following:
 - i. The monthly VOC emissions for the previous 17 months. The emissions shall be calculated for each of the 12-month periods over the previous 17 months.

7. 15A NCAC 2D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY (MACT), 40 CFR 63, Subpart FFFF: NESHAP for Miscellaneous Organic Chemical Manufacturing (MON)

- a. The Permittee shall comply with all applicable provisions contained in Environmental Management Commission Standard 15A NCAC 2D .1111, "Maximum Achievable Control Technology" (MACT) as promulgated in 40 CFR Part 63, Subpart FFFF by **May 10, 2008**, or as provided in the rule. [40 CFR 63.2445(b)]
- b. The Permittee shall submit a Notification of Compliance Status to the Fayetteville Regional in accordance with 40 CFR 63.2520(d) by **October 7, 2008**, or as provided in the rule.

D. Fluoroproducts polymer manufacturing development facility (ID No. FS-A) controlled by a wet scrubber (ID No. FCD-A1) and fabric filter (ID No. FCD-A2)

The following table provides a summary of limits and standards for the emission source(s) described above:

| Regulated Pollutant | Limits/Standards | Applicable Regulation |
|----------------------------|--|--------------------------------------|
| Particulate matter | For process rates less than 30 tons per hour $E = 4.10 P^{0.67}$ Where: E = allowable emission rate in pounds per hour, and P = process weight rate in tons per hour | 15A NCAC 2D .0515 |
| Visible emissions | 20% visible opacity emissions | 15A NCAC 2D .0521 |
| Odors | State-enforceable only odorous emissions must be controlled | 15A NCAC 2D .1806 |
| Volatile organic compounds | Less than 40 tons per consecutive 12-month period | 15A NCAC 2Q .0317 (PSD avoidance) |

1. 15A NCAC 2D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

- a. Emissions of particulate matter from the affected source (**ID No. FS-A**) shall not exceed an allowable emission rate as calculated by the following equation:

$$E = 4.10 \times P^{0.67}$$

Where: E = allowable emission rate in pounds per hour
 P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 2D .0501(c)(3)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If

the results of this test are above the limit given in Section 2.1 D.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.

Monitoring/Recordkeeping [15A NCAC 2Q .0508(f)]

- c. Particulate matter emissions from the Fluoroproducts polymer manufacturing facility (**ID No. FS-A**) shall be controlled by the bagfilter (**ID No. FCD-A2**). To assure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there is no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
 - i. a monthly visual inspection of the system ductwork and material collection unit for leaks; and
 - ii. an annual internal inspection of the bagfilter's structural integrity.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the ductwork and bagfilters are not inspected and maintained.

- d. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:

- i. the date and time of each recorded action;
- ii. the results of each inspection;
- iii. the results of any maintenance performed on the bagfilters; and
- iv. any variance from manufacturer's recommendations, if any, and corrections made.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if these records are not maintained.

Reporting [15A NCAC 2Q .0508(f)]

- e. The Permittee shall submit the results of any maintenance performed on the bagfilters within 30 days of a written request by the DAQ.
- f. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from the affected source (**ID Nos. FS-A**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 2D .0501(c)(8)]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(8) and General Condition JJ. If the results of this test are above the limit given in Section 2.1 E.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

Monitoring/Recordkeeping/Reporting [15A NCAC 2Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required for visible emissions from this source.

STATE ENFORCEABLE ONLY

3. 15A NCAC 2D .1806: CONTROL AND PROHIBITION OF ODOROUS EMISSIONS

- a. The Permittee shall not operate the above listed equipment without implementing management practices or installing and operating odor control equipment sufficient to prevent odorous emissions from the facility

from causing or contributing to objectionable odors beyond the facility's boundary.

**4. 15A NCAC 2Q. 0317: AVOIDANCE CONDITIONS
for 15A NCAC 2D. 0530: PREVENTION OF SIGNIFICANT DETERIORATION**

- a. In order to avoid applicability of this regulation, the fluoroproducts polymer manufacturing development facility (**ID No. FS-A**) shall discharge into the atmosphere less than 40 tons of VOCs per consecutive 12-month period.
- Monitoring/Recordkeeping** [15A NCAC 2Q .0508 (f)]
- b. Calculations of VOC emissions per month shall be made within 30 days of the end of each month. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the amounts of VOC containing materials or the VOC emissions are not monitored and recorded.
- c. The total amount of VOC emissions shall be recorded monthly in a logbook (written or electronic format). The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the VOC emissions exceed this limit.
- Reporting** [15A NCAC 2Q .0508(f)]
- d. The Permittee shall submit a semi-annual summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following:
 - i. The monthly VOC emissions for the previous 17 months. The emissions shall be calculated for each of the 12-month periods over the previous 17 months.

E. APFO manufacturing facility (ID No. AS-A) controlled by a wet scrubber (ID No. ACD-A1) and a building exhaust vent wet scrubber (ID No. ACD-A3) (voluntary use only)

The following table provides a summary of limits and standards for the emission source(s) described above:

| Regulated Pollutant | Limits/Standards | Applicable Regulation |
|----------------------------|---|------------------------------|
| Odors | State-enforceable only odorous emissions must be controlled | 15A NCAC 2D .1806 |
| Toxic air pollutants | State-enforceable only Permit limits for toxic air pollutants shall not be exceeded. See Section 2.2.A and B. | 15A NCAC 2D .1100 |

STATE-ENFORCEABLE ONLY

1. 15A NCAC 2D .1806: CONTROL AND PROHIBITION OF ODOROUS EMISSIONS

- a. The Permittee shall not operate the above listed equipment without implementing management practices or installing and operating odor control equipment sufficient to prevent odorous emissions from the facility from causing or contributing to objectionable odors beyond the facility's boundary.

STATE-ENFORCEABLE ONLY

2. 15A NCAC 2D .1100: CONTROL OF TOXIC AIR POLLUTANTS

- a. **SCRUBBER REQUIREMENTS** - Gaseous and mist emissions from the APFO process area shall be controlled by a wet scrubber (**ID No. ACD-A1**). The Permittee shall ensure the proper performance of the scrubber by monitoring the following operational parameters:
 - i. Liquid flow rate through the packed bed section (minimum of 30 gallons per minute averaged over a 3-hour period), and

- ii. Differential pressure across the packed bed section of the scrubber (maximum of 12 inches of water pressure averaged over a 3-hour period), with a high differential pressure alarm.
- b. **RECORDKEEPING REQUIREMENTS** - The Permittee shall record the results of inspections in a scrubber logbook (written or electronic records), which shall be kept on site and made available to Division of Air Quality personnel upon request. Any variance from the manufacturer's recommendations or the permit monitoring requirements, or the failure of the air pollution control equipment to operate in a normal and usual manner, shall be investigated with corrections made and dates of action recorded in the log book. The inspection and maintenance activities, as well as required monitoring for scrubbing liquid flow rates, and scrubber pressure drops, if appropriate, shall be recorded.

F. Wastewater Treatment Area consisting of an extended aeration biological wastewater treatment facility (ID No. WTS-A) and two indirect steam-heated rotary sludge dryers (ID Nos. WTS-B and WTS-C) controlled by a wet scrubber with mist eliminator (ID No. WTCD-1)

The following table provides a summary of limits and standards for the emission source(s) described above:

| Regulated Pollutant | Limits/Standards | Applicable Regulation |
|---------------------|--|-----------------------|
| Odors | State-enforceable only odorous emissions must be controlled | 15A NCAC 2D .1806 |

STATE ENFORCEABLE ONLY

1. 15A NCAC 2D .1806: CONTROL AND PROHIBITION OF ODOROUS EMISSIONS

- a. The Permittee shall not operate the above listed equipment without implementing management practices or installing and operating odor control equipment sufficient to prevent odorous emissions from the facility from causing or contributing to objectionable odors beyond the facility's boundary.
- b. **SCRUBBER REQUIREMENTS** - Odorous emissions from the wastewater treatment sludge dryers (**ID Nos. WTS-B and WTS-C**) shall be controlled by an impingement-type scrubber with caustic injection (**ID No. WTCD-1**).
- c. **INSPECTION AND MAINTANENCE REQUIREMENTS** - To comply with the provisions of this Permit and ensure that maximum control efficiency is maintained, the Permittee shall perform periodic inspections and maintenance as recommended by the manufacturer. As a minimum, the inspection and maintenance program shall include inspection of spray nozzles, packing material, chemical feed system (if so equipped), and the cleaning/calibration of all associated instrumentation.
- d. **RECORDKEEPING REQUIREMENTS** - The Permittee shall record the results of inspections in a scrubber logbook (written or electronic records) that shall be kept on site and made available to Division of Air Quality personnel upon request. Any variance from the manufacturer's recommendations or the permit monitoring requirements, or the failure of the air pollution control equipment to operate in a normal and usual manner, shall be investigated with corrections made and dates of action recorded in the log book. The inspection and maintenance activities, as well as required monitoring for scrubbing liquid flow rates, and scrubber pressure drops, if appropriate, shall be recorded.

G. Temporary Boiler (ID No. PS-Temp) – No. 2 fuel oil-fired (greater than 30.0 and less than 100.0 million Btu per hour maximum heat input), Uncontrolled

The following table provides a summary of limits and standards for the emission source(s) described above:

| Regulated Pollutant | Limits/Standards | Applicable Regulations |
|---------------------|--|---|
| Particulate Matter | 0.2426 pounds of particulate per million Btu | 15A NCAC 2D .0503(c) |
| Sulfur Dioxide | 0.5 percent sulfur content fuel | 15A NCAC 2D .0524 NSPS (40 CFR 60, Subpart Dc) |
| Visible Emissions | 20 percent opacity | 15A NCAC 2D .0524 NSPS (40 CFR 60, Subpart Dc) |
| Sulfur Dioxide | Less than 40 tons per consecutive twelve-month period. | 15A NCAC 2Q .0317 (15A NCAC 2D .0530 Avoidance) |

1. 15A NCAC 2D .0503: PARTICULATES FROM FUEL BURNING INDIRECT HEAT EXCHANGERS

- a. Emissions of particulate matter discharged into the atmosphere from the combustion of fuel oil at the temporary boiler (**ID No. PS-Temp**) shall not exceed 0.2426 pounds per million Btu heat input.

Testing [15A NCAC 2D .0501(c)(3)]

- b. If emissions testing is required, the testing shall be performed in accordance General Condition JJ. If the results of this test are above the limit given in Section 2.1 G.1. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0503.

Monitoring/Recordkeeping/Reporting [15A NCAC 2Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required for particulate emissions from the firing of No. 2 fuel oil in this source for this regulation.

2. 15A NCAC 2D .0524: NSPS 40 CFR PART 60 SUBPART Dc

- a. The Permittee shall comply with all applicable provisions, including the notification, testing, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 2D .0524 "New Source Performance Standards (NSPS) as promulgated in 40 CFR Part 60 Subpart Dc, including Subpart A "General Provisions."

Emission Limitations [15A NCAC 2D .0524]

- b. The maximum sulfur content of any fuel oil received and burned in the boiler (**ID No. PS-Temp**) shall not exceed 0.5 percent by weight.
- c. Visible emissions shall not exceed 20 percent opacity (6 minute average) except for one six-minute period per hour but not more than 27 percent opacity when firing fuel oil.

Testing [15A NCAC 2D .0524]

- d. Within 60 days of installing any temporary boiler, the Permittee shall conduct a Method 9 test (6-minute average of 24 observations) to determine the opacity of stack emissions in accordance with 40 CFR 60.8, 40 CFR 60.45c(a)(8), and General Condition JJ found in Section 3 of this permit. If the Permittee fails to conduct the opacity observation or if the results of the test are above the applicable limit, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

Monitoring/Recordkeeping [15A NCAC 2Q .0508(f)]

- e. The Permittee shall retain a record of the quantity of No. 2 fuel oil fired at the affected boiler each calendar month. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if this record is not created and retained. [49 CFR 60.48c(g)]
- f. The Permittee shall retain a copy of the fuel supplier certification for any No. 2 fuel oil fired at the affected boiler. The fuel supplier certification shall include the following information:
- i. The name of the oil supplier;

- ii. The sulfur content of the oil (in % by weight); and,
- iii. A statement from the oil supplier that the oil complies with the specification under the definition of distillate oil in 40 CFR 60.41c.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if the sulfur content of the oil exceeds the limit provided in Section 2.1 G.2.b. of this permit or if fuel supplier certifications are not retained as described above. [40 CFR 60.46c(d), 40 CFR 60.48c(f)]

Notifications and Reporting [15A NCAC 2Q .0508(f)]

- g. The Permittee shall submit the following written notifications to the Regional:
 - i. An initial notification of the date of actual initial startup of the boiler within 15 days of such date [40 CFR 60.7(a)(1)];
 - ii. An opacity observation notification indicate the anticipated date that the Permittee will be conducting the Method 9 opacity observation, as required in Section 2.1 G.2.d. of this permit, at least 30 days prior to such date [40 CFR 60.7(a)(6), 40 CFR 60.8(d)]; and,
 - iii. Performance test results with the results of the Method 9 opacity observation, as required in Section 2.1 G.2.d. of this permit, shall be submitted within 30 days of the test.
- h. *Semiannual Report.* In addition to any other reporting required by 40 CFR 60.48c or notification requirements to the EPA, the Permittee is required to provide a semiannual summary report, acceptable to the Regional Air Quality Supervisor, of the sulfur content of the distillate fuel oil fired, by January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. The summary report shall include the following information:
 - i. Fuel supplier certification(s) for distillate fuel oil, as provided in Section 2.1 G.2.d. of this permit;
 - ii. A certified statement signed by the owner or operator that the records of fuel supplier certification(s) submitted represents all of the fuel fired at the affected boiler during the semiannual period; and,
 - iii. All instances of deviations from the requirements of this permit must be clearly identified.

**3. 15A NCAC 2Q. 0317: AVOIDANCE CONDITIONS
for 15A NCAC 2D. 0530: PREVENTION OF SIGNIFICANT DETERIORATION**

- a. In order to avoid applicability of 15A NCAC 2D .0530(g) for major sources and major modifications, the temporary boiler (**ID No. PS-Temp**) shall discharge into the atmosphere less 40 tons of sulfur dioxide per consecutive twelve-month period.
- Testing** [15A NCAC 2D .0501(c)(8)]
- b. If emissions testing is required, the testing shall be performed in accordance with 15A General Condition JJ. If the results of this test are above the limits given in Section 2.1 G.3. a. (**ID No. PS-Temp**) above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.

Monitoring/Recordkeeping [15A NCAC 2Q .0508(f)]

- c. The Permittee shall keep monthly records of fuel usage in a logbook (written or in electronic format), as follows:
 - i. The total quantity (in 1,000 gal) of No. 2 fuel oil fired at the boiler; and,
 - ii. The fuel oil supplier certification for any fuel oil fired at the boiler, including the sulfur content of the oil (in percent by weight).

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if records of the fuel usage and No. 2 fuel oil sulfur content are not created and retained as required above.
- d. The Permittee shall calculate monthly and 12-month rolling SO₂ emissions from the temporary boiler within 30 days after the end of each calendar month. Calculations shall be recorded in a logbook (written or electronic format), according to the following formulas:
 - i. Calculate SO₂ emissions from the previous calendar month using the following equation:

$$E_{SO_2} = 150 * S * Q_{fo2}$$

Where, E_{SO_2} = SO₂ emissions (in lbs) during the previous calendar month,
 S = Sulfur content in the No. 2 fuel oil (in percent by weight), and
 Q_{fo2} = Quantity of No. 2 fuel oil fired at the temporary boiler during the previous calendar month (in 1,000 gal)

ii. Sum the SO₂ emissions from the boiler for the previous 12-month period to determine the 12-month rolling emission total.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if records of the monthly calculations listed above are not retained or if the 12-month rolling emission totals are greater than the emission limit provided in Section 2.1 G.3.a. of this permit.

Reporting [15A NCAC 2Q .0508(f)]

- d. The Permittee shall submit a semi-annual summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following:
 - i. The monthly SO₂ emissions from the boiler for the previous 17 months;
 - ii. The total SO₂ emissions from the boiler for each 12-month period ending during the six month reporting period; and,
 - iii. All instances of deviations from the requirements of this permit must be clearly identified.

H. SentryGlas® Plus Manufacturing (ID No. SGS-A)

The following table provides a summary of limits and standards for the emission source(s) described above:

| Regulated Pollutant | Limits/Standards | Applicable Regulation |
|---------------------|---|-----------------------|
| Visible emissions | 20% visible opacity emissions | 15A NCAC 2D .0521 |
| Odors | State-enforceable only odorous emissions must be controlled | 15A NCAC 2D .1806 |

1. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from this source (**ID No. SGS-A**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 2D .0501(c)(8)]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(8) and General Condition JJ. If the results of this test are above the limit given in Section 2.1 H. 1. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

Monitoring/Recordkeeping/Reporting [15A NCAC 2Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required for visible emissions from this source.

STATE-ENFORCEABLE ONLY

2. 15A NCAC 2D .1806: CONTROL AND PROHIBITION OF ODOROUS EMISSIONS

- a. The Permittee shall not operate the above listed equipment without implementing management practices or installing and operating odor control equipment sufficient to prevent odorous emissions from the facility from causing or contributing to objectionable odors beyond the facility's boundary.

I. Polyvinyl Fluoride Polymer Manufacturing Facility (ID No. FS-B)

The following table provides a summary of limits and standards for the emission source(s) described above:

| Regulated Pollutant | Limits/Standards | Applicable Regulation |
|----------------------------|---|------------------------------|
| Particulate matter | Affected Source: Product Collection System (Vent FEP-B4) for process rates less than 30 tons per hour - $E = 4.10 P^{0.67}$ Where: E = allowable emission rate in pounds per hour, and P = process weight rate in tons per hour | 15A NCAC 2D .0515 |
| Visible emissions | Affected Source: Product Collection System (Vent FEP-B4) 20% visible opacity emissions | 15A NCAC 2D .0521 |
| Odors | State-enforceable only odorous emissions must be controlled | 15A NCAC 2D .1806 |

1. 15A NCAC 2D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

- a. Emissions of particulate matter from the Product Collection System (**ID No. FS-B, Vent FEP-B4**) shall not exceed an allowable emission rate as calculated by the following equation:

$$E = 4.10 \times P^{0.67}$$

Where E = allowable emission rate in pounds per hour
P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 2D .0501 (c)(3)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 I.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.

Monitoring/Recordkeeping [15A NCAC 2Q .0508(f)]

- c. The Permittee shall maintain production records such that the process rates "P" in tons per hour, as specified by the formulas contained above (or the formulas contained in 15A NCAC 2D .0515) can be derived, and shall make these records available to a DAQ authorized representative upon request. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the production records are not maintained or the types of materials and finishes are not monitored.

Reporting [15A NCAC 2Q .0508(f)]

- d. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from the Product Collection System (**ID No. FS-B, Vent FEP-B4**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 2D .0501(c)(8)]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(8) and General Condition JJ. If the results of this test are above the limit given in Section 2.1 I.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

Monitoring [15A NCAC 2Q .0508(f)]

- c. To assure compliance, once a month the Permittee shall observe the emission point of the affected source for any visible emissions above normal. The monthly observation must be made for each month of the calendar year period to ensure compliance with this requirement. If visible emissions from this source are observed to be above normal, the Permittee shall either:
- i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .0501(c)(8) is below the limit given in Section 2.1 I.2.a. above.

If the above-normal emissions are not corrected per (i) above or if the demonstration in (ii) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0521.

Recordkeeping [15A NCAC 2Q .0508(f)]

- d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
- i. the date and time of each recorded action;
 - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
 - iii. the results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521 if these records are not maintained.

Reporting [15A NCAC 2Q .0508(f)]

- e. The Permittee shall submit a summary report of the observations postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

STATE-ENFORCEABLE ONLY

3. 15A NCAC 2D .1806: CONTROL AND PROHIBITION OF ODOROUS EMISSIONS

- a. The Permittee shall not operate the above listed equipment without implementing management practices or installing and operating odor control equipment sufficient to prevent odorous emissions from the facility from causing or contributing to objectionable odors beyond the facility's boundary.

2.2 - Multiple Emission Source(s) Specific Limitations and Conditions

STATE-ENFORCEABLE ONLY

A. 15A NCAC 2D .1100: TOXIC AIR POLLUTANT EMISSIONS LIMITATIONS AND REQUIREMENTS

- a. Pursuant to 15A NCAC 2D .1100 and in accordance with the approved application for an air toxic compliance demonstration, the following permit limit shall not be exceeded:

| Emission Source | Toxic Air Pollutant | Emission Limit |
|------------------------|---|-----------------------|
| Facility-wide | Acetaldehyde | 394.62 lb/hr |
| | Acetic Acid | 54.08 lb/hr |
| | Acrolein | 1.17 lb/hr |
| | Acrylonitrile | 240.06 lb/hr |
| | Ammonia | 39.46 lb/hr |
| | Ammonium Chromate | 0.54 lb/day |
| | Ammonium Dichromate | 0.54 lb/day |
| | Aniline | 14.62 lb/hr |
| | Arsenic and Inorganic Arsenic Compounds | 0.37 lb/yr |
| | Aziridine | 5.26 lb/day |
| | Benzene | 192.05 lb/yr |
| | Benzidine and Salts | 0.02 lb/yr |
| | Benzo(a)pyrene | 52.81 lb/yr |
| | Benzyle Chloride | 7.31 lb/yr |
| | Beryllium | 6.56 lb/yr |
| | Beryllium Chloride | 6.56 lb/yr |
| | Beryllium Fluoride | 6.56 lb/yr |
| | Beryllium Nitrate | 6.56 lb/yr |
| | Bis-Chloromethyl Ether | 0.59 lb/yr |
| | Bromine | 2.92 lb/hr |
| | 1,3-Butadiene | 272.07 lb/yr |
| | Cadmium | 8.8 lb/yr |
| | Cadmium Acetate | 8.8 lb/yr |

| Emission Source | Toxic Air Pollutant | Emission Limit |
|------------------------|---------------------------------|------------------------------|
| | Cadmium Bromide | 8.8 lb/yr |
| Facility-wide | Calcium Chromate | 0.13 lb/yr |
| | Carbon Disulfide | 163.11 lb/day |
| | Carbon Tetrachloride | 10,723 lb/yr |
| | Chlorine | 13.15 lb/hr 32.88 lb/day |
| | Chlorobenzene | 1,929.23 lb/day |
| | Chloroform | 6,882 lb/yr |
| | Chloroprene | 51.15 lb/hr 385.85 lb/day |
| | Chromic Acid | 0.54 lb/day |
| | Chromium (VI) | 0.13 lb/yr |
| | Cresol | 32.15 lb/hr |
| | p-Dichlorobenzene | 964.62 lb/hr |
| | Dichlorodifluoromethane | 217,476.92 lb/day |
| | Dichlorofluoromethane | 438.46 lb/day |
| | Di(2-ethylhexyle)phthalate | 26.31 lb/day |
| | Dimethyl Sulfate | 2.63 lb/day |
| | 1,4-Dioxane | 491.08 lb/day |
| | Epichlorohydrin | 132,832 lb/yr |
| | Ethyl Acetate | 2,046.15 lb/hr |
| | Ethylenediamine | 36.54 lb/hr 263.08 lb/day |
| | Ethylene Dibromide | 640.2 lb/yr |
| | Ethylene Dichloride | 6,081 lb/yr |
| | Ethylene Glycol Monoethyl Ether | 27.77 lb/hr 105.23 lb/day |
| | Ethylene Oxide | 43.21 lb/yr |
| Ethyl Mercaptan | 1.46 lb/hr | |
| Fluorides | 3.65 lb/hr 14.03 lb/day | |
| Formaldehyde | 2.19 lb/hr | |

| Emission Source | Toxic Air Pollutant | Emission Limit |
|------------------------|--|------------------------------------|
| | Hexachlorocyclopentadiene | 0.15 lb/hr 0.53 lb/day |
| Facility-wide | Hexachlorodibenzo-p-dioxine | 0.12 lb/yr |
| | n-Hexane | 964.62 lb/day |
| | Hexane Isomers | 5,261.54 lb/hr |
| | Hydazine | 0.53 lb/day |
| | Hydrogen Chloride | 10.23 lb/hr |
| | Hydrogen Cyanide | 16.08 lb/hr 122.77 lb/day |
| | Hydrogen Sulfide | 30.69 lb/hr |
| | Maleic Anhydride | 1.46 lb/hr 10.52 lb/day |
| | Manganese & Compounds | 27.18 lb/day |
| | Manganese Cyclopentadienyl Tricarbonyl | 0.53 lb/day |
| | Manganese Tetroxide | 5.44 lb/day |
| | Mercury, Alkyl | 0.05 lb/day |
| | Mercury, Aryl & Inorganic | 0.53 lb/hr |
| | Mercury, vapor | 0.53 lb/hr |
| | Methyl Chloroform | 3,580.77 lb/hr 10,523.08 lb/day |
| | Methylene Chloride | 24.85 lb/hr 38,409 lb/yr |
| | Methyl Ethyl Ketone | 1,293.46 lb/hr 3,244.62 lb/day |
| | Methyl Isobutyl Ketone | 438.46 lb/hr 2,244.92 lb/day |
| | Methyl Mercaptan | 0.73 lb/hr |
| | Nickel Carbonyl | 0.53 lb/day |
| | Nickel Metal | 5.26 lb/day |
| | Nickel, Soluble Compounds as Nickel | 5.26 lb/day |
| | Nickel Subsulfide | 3.36 lb/yr |
| | Nitric Acid | 14.62 lb/hr |
| Nitrobenzene | 7.31 lb/hr 52.62 lb/day | |
| n-Nitrosodimethylamine | 80.02 lb/yr | |

| Emission Source | Toxic Air Pollutant | Emission Limit |
|------------------------|--|---------------------------------|
| | Pentachlorophenol | 0.37 lb/hr 2.63 lb/day |
| Facility-wide | Perchloroethylene | 304,073 lb/yr |
| | Phenol | 13.88 lb/hr |
| | Phosgene | 2.19 lb/day |
| | Phosphine | 1.90 lb/hr |
| | Polychlorinated Biphenyls | 132.83 lb/yr |
| | Potassium Chromate | 0.54 lb/day |
| | Potassium Dichromate | 0.54 lb/day |
| | Sodium Chromate | 0.54 lb/day |
| | Sodium Dichromate | 0.54 lb/day |
| | Strontium Chromate | 0.13 lb/yr |
| | Styrene | 154.92 lb/hr |
| | Sulfuric Acid | 1.46 lb/hr 10.52 lb/day |
| | Tetrachlorodibenzo-p-dioxin | 0.0048 lb/yr |
| | 1,1,1,2-Tetrachloro-2,2-Difluoroethane | 45,600 lb/day |
| | 1,1,2,2-Tetrachloro-1,2-Difluoroethane | 45,600 lb/day |
| | 1,1,1,2-Tetrachloroethane | 10,082 lb/yr |
| | Toluene | 818.46 lb/hr 4,121.54 lb/day |
| | Toluene-2,4-diisocyanate | 0.22 lb/hr 0.44 lb/day |
| | Trichloroethylene | 94,423 lb/yr |
| | Trichlorofluoromethane | 491,076.92 lb/day |
| | 1,1,2-Trichloro-1,2,2-Trifluoroethane | 13,885 lb/hr |
| | Vinyl Chloride | 608.1 lb/yr |
| | Vinylidene Chloride | 105.23 lb/day |
| Xylene | 950 lb/hr 2,367.69 lb/day | |
| Zinc Chromate | 0.13 lb/yr | |

Recordkeeping [15A NCAC 2Q .0508(f)]

- b. For compliance purposes, the Permittee shall maintain records of production rates, throughput, material usage, periods of excess emissions, failure of air pollution control equipment to operate in a normal and usual manner, and other process operational information, that allows for evaluation for compliance with the toxic air pollutant limits. These records shall be retained for a minimum of three years from the date of recording, and access to these records shall be provided to the Division of Air Quality staff upon request.

Reporting [15A NCAC 2Q .0508(f)]

- c. For compliance purposes, within thirty (30) days after each calendar year quarter the following shall be reported to the Regional Supervisor, Division of Air Quality:
 - i. Any and all exceedences of applicable toxic air pollutant emission limits during the previous calendar year quarter.
 - ii. The maximum pounds per 1-hour emission rate at any time during the previous calendar year quarter for all applicable toxic air pollutants that have a listed pounds per hour emission rate.
 - iii. The maximum pounds per 24-hour emission rate at any time during the previous calendar year quarter for all applicable toxic air pollutants that have a listed pounds per day emission rate.
 - iv. The yearly emission rate for the 12-month period ending with the previous calendar year quarter for all applicable toxic air pollutants that have a listed pounds per year emission rate.

STATE-ENFORCEABLE ONLY

B. 15A NCAC 2D .1100: TOXIC AIR POLLUTANT EMISSIONS LIMITATIONS AND REQUIREMENTS

- a. Pursuant to 15A NCAC 2D .1100 and in accordance with the approved application for an air toxic compliance demonstration, the following permit limit shall not be exceeded:

| Emission Source | Toxic Air Pollutant | Emission Limit |
|--|---------------------|----------------------------|
| High dispersion stacks (ID Nos. NEP-Hdr-1, NEP-Hdr-2, AEP-A1, and FEP-A1) | Hydrogen Fluoride | 7.28 lb/hr 52.45 lb/day |
| All other sources | Hydrogen Fluoride | 2.7 lb/hr 19.4 lb/day |

Monitoring [15A NCAC 2Q .0508(f)]

- b. The Permittee shall ensure the proper performance of the Nafion Baffle Plate-Type Tower Scrubbers (**ID Nos. NCD-Hdr-1 and NCD-Hdr-2**) by monitoring the Injection liquid flow rate (minimum of 7,000 kilograms per hour, averaged over a three-hour period).

Recordkeeping [15A NCAC 2Q .0508(f)]

- c. The Permittee shall record the results of inspections of the Nafion Baffle Plate-Type Tower Scrubbers (**ID Nos. NCD-Hdr-1 and NCD-Hdr-2**) in a scrubber logbook (written or electronic records) that shall be kept on site and made available to Division of Air Quality personnel upon request. Any variance from the manufacturer's recommendations or the permit monitoring requirements, or the failure of the air pollution control equipment to operate in a normal and usual manner, shall be investigated with corrections made and dates of action recorded in the log book. The inspection and maintenance activities, as well as required monitoring for scrubbing liquid flow rates, and scrubber pressure drops, if appropriate, shall be recorded.
- d. The Permittee shall maintain records of production rates, throughput, material usage, periods of excess emissions, failure of air pollution control equipment to operate in a normal and usual manner, and other

process operational information, that allows for evaluation for compliance with the toxic air pollutant limits. These records shall be retained for a minimum of three years from the date of recording, and access to these records shall be provided to the Division of Air Quality staff upon request.

Reporting [15A NCAC 2Q .0508(f)]

- e. For compliance purposes, within thirty (30) days after each calendar year quarter the following shall be reported to the Regional Supervisor, Division of Air Quality:
 - i. Any and all exceedences of applicable toxic air pollutant emission limits during the previous calendar year quarter.
 - ii. The maximum pounds per 1-hour emission rate at any time during the previous calendar year quarter for all applicable toxic air pollutants that have a listed pounds per hour emission rate.
 - iii. The maximum pounds per 24-hour emission rate at any time during the previous calendar year quarter for all applicable toxic air pollutants which have a listed pounds per day emission rate.

- C. **40 CFR Part 68 "ACCIDENTAL RELEASE PREVENTION REQUIREMENTS: RISK MANAGEMENT PROGRAMS UNDER THE CLEAN AIR ACT, SECTION 112(r)"** - The Permittee shall comply with all applicable requirements in accordance with 40 CFR Part 68 including submitting a Risk Management plan to EPA pursuant to 40 CFR Part 68.150 prior to June 21, 1999 or as specified in 40 CFR Part 68.10.

SECTION 3 - GENERAL CONDITIONS (v2.19)

This section describes terms and conditions applicable to this Title V facility. All references to the "permit" in this section apply only to Part I of the permit.

A. **General Provisions** [NCGS 143-215 and 15A NCAC 2Q .0508(i)(16)]

- 1. Terms not otherwise defined in this permit shall have the meaning assigned to such terms as defined in 15A NCAC 2D and 2Q.
- 2. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are binding and enforceable pursuant to NCGS 143-215.114A and 143-215.114B, including assessment of civil and/or criminal penalties. Any unauthorized deviation from the conditions of this permit may constitute grounds for revocation and/or enforcement action by the DAQ.
- 3. This permit is not a waiver of or approval of any other Department permits that may be required for other aspects of the facility which are not addressed in this permit.
- 4. This permit does not relieve the Permittee from liability for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted facility, or from penalties therefore, nor does it allow the Permittee to cause pollution in contravention of state laws or rules, unless specifically authorized by an order from the North Carolina Environmental Management Commission.
- 5. Except as identified as state-only requirements in this permit, all terms and conditions contained herein shall be enforceable by the DAQ, the EPA, and citizens of the United States as defined in the Federal Clean Air Act.
- 6. Any stationary source of air pollution shall not be operated, maintained, or modified without the appropriate and valid permits issued by the DAQ, unless the source is exempted by rule. The DAQ may issue a permit only after it receives reasonable assurance that the installation will not cause air pollution in violation of any of the applicable requirements. A permitted installation may only be operated, maintained, constructed, expanded, or modified in a manner that is consistent with the terms of this permit.

B. **Permit Availability** [15A NCAC 2Q .0507(k) and .0508(i)(9)(B)]

The Permittee shall have available at the facility a copy of this permit and shall retain for the duration of the permit term one complete copy of the application and any information submitted in support of the application package. The permit and application shall be made available to an authorized representative of Department of Environment and Natural Resources upon request.

C. **Severability Clause** [15A NCAC 2Q .0508(i)(2)]

In the event of an administrative challenge to a final and binding permit in which a condition is held to be invalid, the provisions in this permit are severable so that all requirements contained in the permit, except those held to be invalid, shall remain valid and must be complied with.

D. **Submissions** [15A NCAC 2Q .0507(e) and 2Q .0508(i)(16)]

Except as otherwise specified herein, two copies of all documents, reports, test data, monitoring data, notifications, request for renewal, and any other information required by this permit shall be submitted to the appropriate Regional Office. Refer to the Regional Office address on the cover page of this permit. For continuous emissions monitoring systems (CEMS) reports, continuous opacity monitoring systems (COMS) reports, quality assurance (QA)/quality control (QC) reports, acid rain CEM certification reports, and NOx budget CEM certification reports, one copy shall be sent to the appropriate Regional Office and one copy shall be sent to:

Supervisor, Stationary Source Compliance
North Carolina Division of Air Quality
1641 Mail Service Center
Raleigh, NC 27699-1641

E. **Duty to Comply** [15A NCAC 2Q .0508(i)(2)]

The Permittee shall comply with all terms, conditions, requirements, limitations and restrictions set forth in this permit. Noncompliance with any permit condition except conditions identified as state-only requirements constitutes a violation of the Federal Clean Air Act. Noncompliance with any permit condition is grounds for enforcement action, for permit termination, revocation and reissuance, or modification, or for denial of a permit renewal application.

F. **Circumvention - STATE ENFORCEABLE ONLY**

The facility shall be properly operated and maintained at all times in a manner that will effect an overall reduction in air pollution. Unless otherwise specified by this permit, no emission source may be operated without the concurrent operation of its associated air pollution control device(s) and appurtenances.

G. **Permit Modifications**

1. Administrative Permit Amendments [15A NCAC 2Q .0514]

The Permittee shall submit an application for an administrative permit amendment in accordance with 15A NCAC 2Q .0514.

2. Transfer in Ownership or Operation and Application Submittal Content [15A NCAC 2Q .0524 and 2Q .0505]

The Permittee shall submit an application for an ownership change in accordance with 15A NCAC 2Q.0524 and 2Q .0505.

3. Minor Permit Modifications [15A NCAC 2Q .0515]

The Permittee shall submit an application for a minor permit modification in accordance with 15A NCAC 2Q .0515.

4. Significant Permit Modifications [15A NCAC 2Q .0516]

The Permittee shall submit an application for a significant permit modification in accordance with 15A NCAC 2Q .0516.

5. Reopening for Cause [15A NCAC 2Q .0517]

The Permittee shall submit an application for reopening for cause in accordance with 15A NCAC 2Q .0517.

H. **Changes Not Requiring Permit Modifications**

1. Section 502(b)(10) Changes [15A NCAC 2Q .0523(a)]

a. "Section 502(b)(10) changes" means changes that contravene an express permit term or condition. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.

- b. The Permittee may make Section 502(b)(10) changes without having the permit revised if:
 - i. the changes are not a modification under Title I of the Federal Clean Air Act;
 - ii. the changes do not cause the allowable emissions under the permit to be exceeded;
 - iii. the Permittee notifies the Director and EPA with written notification at least seven days before the change is made; and
 - iv. the Permittee shall attach the notice to the relevant permit.
 - c. The written notification shall include:
 - i. a description of the change;
 - ii. the date on which the change will occur;
 - iii. any change in emissions; and
 - iv. any permit term or condition that is no longer applicable as a result of the change.
 - d. Section 502(b)(10) changes shall be made in the permit the next time that the permit is revised or renewed, whichever comes first.
2. Off Permit Changes [15A NCAC 2Q .0523(b)]
The Permittee may make changes in the operation or emissions without revising the permit if:
- a. the change affects only insignificant activities and the activities remain insignificant after the change; or
 - b. the change is not covered under any applicable requirement.
3. Emissions Trading [15A NCAC 2Q .0523(c)]
To the extent that emissions trading is allowed under 15A NCAC 2D, including subsequently adopted maximum achievable control technology standards, emissions trading shall be allowed without permit revision pursuant to 15A NCAC 2Q .0523(c).

I.A. Reporting Requirements for Excess Emissions and Permit Deviations

[15A NCAC 2D .0535(f) and 2Q .0508(f)(2)]

“**Excess Emissions**” - means an emission rate that exceeds any applicable emission limitation or standard allowed by any rule in Sections .0500, .0900, .1200, or .1400 of Subchapter 2D; or by a permit condition; or that exceeds an emission limit established in a permit issued under 15A NCAC 2Q .0700. (*Note: Definitions of excess emissions under 2D .1110 and 2D .1111 shall apply where defined by rule.*)

“**Deviations**” - for the purposes of this condition, any action or condition not in accordance with the terms and conditions of this permit including those attributable to upset conditions as well as excess emissions as defined above lasting less than four hours.

Excess Emissions

1. If a source is required to report excess emissions under NSPS (15A NCAC 2D .0524), NESHAPS (15A NCAC 2D .1110 or .1111), or the operating permit provides for periodic (e.g., quarterly) reporting of excess emissions, reporting shall be performed as prescribed therein.
2. If the source is not subject to NSPS (15A NCAC 2D .0524), NESHAPS (15A NCAC 2D .1110 or .1111), or these rules do NOT define "excess emissions," the Permittee shall report excess emissions in accordance with 15A NCAC 2D .0535 as follows:
 - a. Pursuant to 15A NCAC 2D .0535, if excess emissions last for more than four hours resulting from a malfunction, a breakdown of process or control equipment, or any other abnormal condition, the owner or operator shall:
 - i. notify the Regional Supervisor or Director of any such occurrence by 9:00 a.m. Eastern Time of the Division's next business day of becoming aware of the occurrence and provide:
 - name and location of the facility;
 - nature and cause of the malfunction or breakdown;
 - time when the malfunction or breakdown is first observed;
 - expected duration; and
 - estimated rate of emissions;
 - ii. notify the Regional Supervisor or Director immediately when corrective measures have been accomplished; and
 - iii. submit to the Regional Supervisor or Director within 15 days a written report as described in 15A NCAC

2D .0535(f)(3).

Permit Deviations

3. Pursuant to 15A NCAC 2Q .0508(f)(2), the Permittee shall report deviations from permit requirements (terms and conditions) as follows:
 - a. Notify the Regional Supervisor or Director of all other deviations from permit requirements not covered under 15A NCAC 2D .0535 quarterly. A written report to the Regional Supervisor shall include the probable cause of such deviation and any corrective actions or preventative actions taken. The responsible official shall certify all deviations from permit requirements.

I.B. Other Requirements under 15A NCAC 2D .0535

The Permittee shall comply with all other applicable requirements contained in 15A NCAC 2D .0535, including 15A NCAC 2D .0535(c) as follows:

1. Any excess emissions that do not occur during start-up and shut-down shall be considered a violation of the appropriate rule unless the owner or operator of the sources demonstrates to the Director, that the excess emissions are a result of a malfunction. The Director shall consider, along with any other pertinent information, the criteria contained in 15A NCAC 2D .0535(c)(1) through (7).
2. 15A NCAC 2D .0535(g). Excess emissions during start-up and shut-down shall be considered a violation of the appropriate rule if the owner or operator cannot demonstrate that excess emissions are unavoidable.

J. Emergency Provisions [40 CFR 70.6(g)]

The Permittee shall be subject to the following provisions with respect to emergencies:

1. An emergency means any situation arising from sudden and reasonably unforeseeable events beyond the control of the facility, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the facility to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error.
2. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions specified in 3. below are met.
3. The affirmative defense of emergency shall be demonstrated through properly signed contemporaneous operating logs or other relevant evidence that include information as follows:
 - a. an emergency occurred and the Permittee can identify the cause(s) of the emergency;
 - b. the permitted facility was at the time being properly operated;
 - c. during the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the standards or other requirements in the permit; and
 - d. the Permittee submitted notice of the emergency to the DAQ within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
4. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
5. This provision is in addition to any emergency or upset provision contained in any applicable requirement specified elsewhere herein.

K. Permit Renewal [15A NCAC 2Q .0508(e) and 2Q .0513(b)]

This permit is issued for a fixed term of five years for facilities subject to Title IV requirements and for a term not to exceed five years in the case of all other facilities. This permit shall expire at the end of its term. Permit expiration terminates the facility's right to operate unless a complete renewal application is submitted at least nine months before the date of permit expiration. If the Permittee or applicant has complied with 15A NCAC 2Q .0512(b)(1), this permit shall not expire until the renewal permit has been issued or denied. All terms and conditions of this permit shall remain in effect until the renewal permit has been issued or denied.

L. **Need to Halt or Reduce Activity Not a Defense** [15A NCAC 2Q .0508(i)(4)]

It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

M. **Duty to Provide Information (submittal of information)** [15A NCAC 2Q .0508(i)(9)]

1. The Permittee shall furnish to the DAQ, in a timely manner, any reasonable information that the Director may request in **writing** to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit.
2. The Permittee shall furnish the DAQ copies of records required to be kept by the permit when such copies are requested by the Director. For information claimed to be confidential, the Permittee may furnish such records directly to the EPA upon request along with a claim of confidentiality.

N. **Duty to Supplement** [15A NCAC 2Q .0507(f)]

The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the DAQ. The Permittee shall also provide additional information as necessary to address any requirement that becomes applicable to the facility after the date a complete permit application was submitted but prior to the release of the draft permit.

O. **Retention of Records** [15A NCAC 2Q .0508(f) and 2Q .0508 (l)]

The Permittee shall retain records of all required monitoring data and supporting information for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Supporting information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring information, and copies of all reports required by the permit. These records shall be maintained in a form suitable and readily available for expeditious inspection and review. Any records required by the conditions of this permit shall be kept on site and made available to DAQ personnel for inspection upon request.

P. **Compliance Certification** [15A NCAC 2Q .0508(n)]

The Permittee shall submit to the DAQ and the EPA (Air and EPCRA Enforcement Branch, EPA, Region 4, 61 Forsyth Street, Atlanta, GA 30303) postmarked on or before March 1 a compliance certification (for the preceding calendar year) by a responsible official with all federally-enforceable terms and conditions in the permit, including emissions limitations, standards, or work practices. It shall be the responsibility of the current owner to submit a compliance certification for the entire year regardless of who owned the facility during the year. The compliance certification shall comply with additional requirements as may be specified under Sections 114(a)(3) or 504(b) of the Federal Clean Air Act. The compliance certification shall specify:

1. the identification of each term or condition of the permit that is the basis of the certification;
2. the compliance status (with the terms and conditions of the permit for the period covered by the certification);
3. whether compliance was continuous or intermittent; and
4. the method(s) used for determining the compliance status of the source during the certification period.

Q. **Certification by Responsible Official** [15A NCAC 2Q .0520]

A responsible official shall certify the truth, accuracy, and completeness of any application form, report, or compliance certification required by this permit. All certifications shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

R. **Permit Shield for Applicable Requirements** [15A NCAC 2Q .0512]

1. Compliance with the terms and conditions of this permit shall be deemed compliance with applicable requirements, where such applicable requirements are included and specifically identified in the permit as of the date of permit issuance.
2. A permit shield shall not alter or affect:
 - a. the power of the Commission, Secretary of the Department, or Governor under NCGS 143-215.3(a)(12), or EPA under Section 303 of the Federal Clean Air Act;

- b. the liability of an owner or operator of a facility for any violation of applicable requirements prior to the effective date of the permit or at the time of permit issuance;
 - c. the applicable requirements under Title IV; or
 - d. the ability of the Director or the EPA under Section 114 of the Federal Clean Air Act to obtain information to determine compliance of the facility with its permit.
3. A permit shield does not apply to any change made at a facility that does not require a permit or permit revision made under 15A NCAC 2Q .0523.
 4. A permit shield does not extend to minor permit modifications made under 15A NCAC 2Q .0515.

S. **Termination, Modification, and Revocation of the Permit** [15A NCAC 2Q .0519]

The Director may terminate, modify, or revoke and reissue this permit if:

1. the information contained in the application or presented in support thereof is determined to be incorrect;
2. the conditions under which the permit or permit renewal was granted have changed;
3. violations of conditions contained in the permit have occurred;
4. the EPA requests that the permit be revoked under 40 CFR 70.7(g) or 70.8(d); or
5. the Director finds that termination, modification, or revocation and reissuance of the permit is necessary to carry out the purpose of NCGS Chapter 143, Article 21B.

T. **Insignificant Activities** [15A NCAC 2Q .0503]

Because an emission source or activity is insignificant does not mean that the emission source or activity is exempted from any applicable requirement or that the owner or operator of the source is exempted from demonstrating compliance with any applicable requirement. The Permittee shall have available at the facility at all times and made available to an authorized representative upon request, documentation, including calculations, if necessary, to demonstrate that an emission source or activity is insignificant.

U. **Property Rights** [15A NCAC 2Q .0508(i)(8)]

This permit does not convey any property rights in either real or personal property or any exclusive privileges.

V. **Inspection and Entry** [15A NCAC 2Q .0508(l) and NCGS 143-215.3(a)(2)]

1. Upon presentation of credentials and other documents as may be required by law, the Permittee shall allow the DAQ, or an authorized representative, to perform the following:
 - a. enter the Permittee's premises where the permitted facility is located or emissions-related activity is conducted, or where records are kept under the conditions of the permit;
 - b. have access to and copy, at reasonable times, any records that are required to be kept under the conditions of the permit;
 - c. inspect at reasonable times and using reasonable safety practices any source, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
 - d. sample or monitor substances or parameters, using reasonable safety practices, for the purpose of assuring compliance with the permit or applicable requirements at reasonable times.

Nothing in this condition shall limit the ability of the EPA to inspect or enter the premises of the Permittee under Section 114 or other provisions of the Federal Clean Air Act.

2. No person shall refuse entry or access to any authorized representative of the DAQ who requests entry for purposes of inspection, and who presents appropriate credentials, nor shall any person obstruct, hamper, or interfere with any such authorized representative while in the process of carrying out his official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

W. **Annual Fee Payment** [15A NCAC 2Q .0508(i)(10)]

1. The Permittee shall pay all fees in accordance with 15A NCAC 2Q .0200.
2. Payment of fees may be by check or money order made payable to the N.C. Department of Environment and Natural Resources. Annual permit fee payments shall refer to the permit number.
3. If, within 30 days after being billed, the Permittee fails to pay an annual fee, the Director may initiate action to

terminate the permit under 15A NCAC 2Q .0519.

X. **Annual Emission Inventory Requirements** [15A NCAC 2Q .0207]

The Permittee shall report by **June 30 of each year** the actual emissions of each air pollutant listed in 15A NCAC 2Q .0207(a) from each emission source within the facility during the previous calendar year. The report shall be in or on such form as may be established by the Director. The accuracy of the report shall be certified by a responsible official of the facility.

Y. **Confidential Information** [15A NCAC 2Q .0107 and 2Q. 0508(i)(9)]

Whenever the Permittee submits information under a claim of confidentiality pursuant to 15A NCAC 2Q .0107, the Permittee may also submit a copy of all such information and claim directly to the EPA upon request. All requests for confidentiality must be in accordance with 15A NCAC 2Q .0107.

Z. **Construction and Operation Permits** [15A NCAC 2Q .0100 and .0300]

A construction and operating permit shall be obtained by the Permittee for any proposed new or modified facility or emission source which is not exempted from having a permit prior to the beginning of construction or modification, in accordance with all applicable provisions of 15A NCAC 2Q .0100 and .0300.

AA. **Standard Application Form and Required Information** [15A NCAC 2Q .0505 and .0507]

The Permittee shall submit applications and required information in accordance with the provisions of 15A NCAC 2Q .0505 and .0507.

BB. **Financial Responsibility and Compliance History** [15A NCAC 2Q .0507(d)(3)]

The DAQ may require an applicant to submit a statement of financial qualifications and/or a statement of substantial compliance history.

CC. **Refrigerant Requirements (Stratospheric Ozone and Climate Protection)** [15A NCAC 2Q .0501(e)]

1. If the Permittee has appliances or refrigeration equipment, including air conditioning equipment, which use Class I or II ozone-depleting substances such as chlorofluorocarbons and hydrochlorofluorocarbons listed as refrigerants in 40 CFR Part 82 Subpart A Appendices A and B, the Permittee shall service, repair, and maintain such equipment according to the work practices, personnel certification requirements, and certified recycling and recovery equipment specified in 40 CFR Part 82 Subpart F.
2. The Permittee shall not knowingly vent or otherwise release any Class I or II substance into the environment during the repair, servicing, maintenance, or disposal of any such device except as provided in 40 CFR Part 82 Subpart F.
3. The Permittee shall comply with all reporting and recordkeeping requirements of 40 CFR 82.166. Reports shall be submitted to the EPA or its designee as required.

DD. **Prevention of Accidental Releases - Section 112(r)** [15A NCAC 2Q .0508(h)]

If the Permittee is required to develop and register a Risk Management Plan with EPA pursuant to Section 112(r) of the Clean Air Act, then the Permittee is required to register this plan in accordance with 40 CFR Part 68.

EE. **Prevention of Accidental Releases General Duty Clause - Section 112(r)(1) -**

FEDERALLY-ENFORCEABLE ONLY

Although a risk management plan may not be required, if the Permittee produces, processes, handles, or stores any amount of a listed hazardous substance, the Permittee has a general duty to take such steps as are necessary to prevent the accidental release of such substance and to minimize the consequences of any release.

FF. **Title IV Allowances** [15A NCAC 2Q .0508(i)(1)]

This permit does not limit the number of Title IV allowances held by the Permittee, but the Permittee may not use allowances as a defense to noncompliance with any other applicable requirement. The Permittee's emissions may not exceed any allowances that the facility lawfully holds under Title IV of the Federal Clean Air Act.

GG. **Air Pollution Emergency Episode** [15A NCAC 2D .0300]

Should the Director of the DAQ declare an Air Pollution Emergency Episode, the Permittee will be required to operate in accordance with the Permittee's previously approved Emission Reduction Plan or, in the absence of an approved plan, with the appropriate requirements specified in 15A NCAC 2D .0300.

HH. **Registration of Air Pollution Sources** [15A NCAC 2D .0200]

The Director of the DAQ may require the Permittee to register a source of air pollution. If the Permittee is required to register a source of air pollution, this registration and required information will be in accordance with 15A NCAC 2D .0202(b).

II. **Ambient Air Quality Standards** [15A NCAC 2D .0501(e)]

In addition to any control or manner of operation necessary to meet emission standards specified in this permit, any source of air pollution shall be operated with such control or in such manner that the source shall not cause the ambient air quality standards in 15A NCAC 2D .0400 to be exceeded at any point beyond the premises on which the source is located. When controls more stringent than named in the applicable emission standards in this permit are required to prevent violation of the ambient air quality standards or are required to create an offset, the permit shall contain a condition requiring these controls.

JJ. **General Emissions Testing and Reporting Requirements** [15A NCAC 2Q .0508(i)(16)]

If emissions testing is required by this permit or the DAQ or if the Permittee submits emissions testing to the DAQ in support of a permit application, the Permittee shall perform such testing in accordance with the appropriate EPA reference method(s) as approved by the DAQ and follow the procedures outlined below. The Permittee must request **in writing** and receive approval from the DAQ for an alternate test method or procedure.

1. The Permittee shall submit a completed Protocol Submittal Form to the DAQ Regional Supervisor at least 45 days prior to the scheduled test date. A copy of the Protocol Submittal Form may be obtained from the Regional Supervisor.
2. The Permittee shall notify the Regional Supervisor of the specific test dates at least 15 days prior to testing in order to afford the DAQ the opportunity to have an observer on-site during the sampling program.
3. During all sampling periods, the Permittee shall operate the emission source(s) under maximum normal operating conditions or alternative operating conditions as deemed appropriate by the Regional Supervisor or his delegate.
4. The Permittee shall submit **two** copies of the test report to the DAQ. The test report shall contain at a minimum the following information:
 - a. a certification of the test results by sampling team leader and facility representative;
 - b. a summary of emissions results and text detailing the objectives of the testing program, the applicable state and federal regulations, and conclusions about the testing and compliance status of the emission source(s);
 - c. a detailed description of the tested emission source(s) and sampling location(s) process flow diagrams, engineering drawings, and sampling location schematics should be included as necessary;
 - d. all field, analytical, and calibration data necessary to verify that the testing was performed as specified in the applicable test methods;
 - e. example calculations for at least one test run using equations in the applicable test methods and all test results including intermediate parameter calculations; and
 - f. documentation of facility operating conditions during all testing periods and an explanation relating these operating conditions to maximum normal operation. If necessary, provide historical process data to verify maximum normal operation.
5. The testing requirement(s) shall be considered satisfied only upon written approval of the test results by the DAQ.
6. The DAQ will review emission test results with respect exclusively to the specified testing objectives as proposed by the Permittee and approved by the DAQ. The use of the test results beyond the stated objectives remains subject to the approval of the DAQ.

KK. **Reopening for Cause** [15A NCAC 2Q .0517]

1. A permit shall be reopened and revised under the following circumstances:

- a. additional applicable requirements become applicable to a facility with remaining permit term of three or more years;
 - b. additional requirements (including excess emission requirements) become applicable to a source covered by Title IV;
 - c. the Director or EPA finds that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or
 - d. the Director or EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
2. Any permit reopening shall be completed or a revised permit issued within 18 months after the applicable requirement is promulgated. No reopening is required if the effective date of the requirement is after the expiration of the permit term unless the term of the permit was extended pursuant to 15A NCAC 2Q .0513(c).
 3. Except for the state-enforceable only portion of the permit, the procedures set out in 15A NCAC 2Q .0507, .0521, or .0522 shall be followed to reissue the permit. If the State-enforceable only portion of the permit is reopened, the procedures in 15A NCAC 2Q .0300 shall be followed. The proceedings shall affect only those parts of the permit for which cause to reopen exists.
 4. The Director shall notify the Permittee at least 60 days in advance of the date that the permit is to be reopened, except in cases of imminent threat to public health or safety the notification period may be less than 60 days.
 5. Within 90 days, or 180 days if the EPA extends the response period, after receiving notification from the EPA that a permit needs to be terminated, modified, or revoked and reissued, the Director shall send to the EPA a proposed determination of termination, modification, or revocation and reissuance, as appropriate.

LL. **Reporting Requirements for Non-Operating Equipment** [15A NCAC 2Q .0508(i)(16)]

The Permittee shall maintain a record of operation for permitted equipment noting whenever the equipment is taken from and placed into operation. During operation the monitoring recordkeeping and reporting requirements as prescribed by the permit shall be implemented within the monitoring period.

ATTACHMENT

List of Acronyms

| | |
|------------------------|--|
| AOS | Alternate Operating Scenario |
| BACT | Best Available Control Technology |
| Btu | British thermal unit |
| CEM | Continuous Emission Monitor |
| CFR | Code of Federal Regulations |
| CAA | Clean Air Act |
| DAQ | Division of Air Quality |
| DENR | Department of Environment and Natural Resources |
| EMC | Environmental Management Commission |
| EPA | Environmental Protection Agency |
| FR | Federal Register |
| GACT | Generally Available Control Technology |
| HAP | Hazardous Air Pollutant |
| MACT | Maximum Achievable Control Technology |
| NCAC | North Carolina Administrative Code |
| NCGS | North Carolina General Statutes |
| NESHAPS | National Emission Standards for Hazardous Air Pollutants |
| NO_x | Nitrogen Oxides |
| NSPS | New Source Performance Standard |
| OAH | Office of Administrative Hearings |
| PM | Particulate Matter |
| PM₁₀ | Particulate Matter with Nominal Aerodynamic Diameter of 10 Micrometers or Less |
| POS | Primary Operating Scenario |
| PSD | Prevention of Significant Deterioration |
| SIC | Standard Industrial Classification |
| SIP | State Implementation Plan |
| SO₂ | Sulfur Dioxide |
| tpy | Tons Per Year |
| VOC | Volatile Organic Compound |